

## THERMAL BLANKET

### ABSTRACT

*DMSB 1*

A thermal blanket includes an inflatable covering with a head end, a foot end, two edges and an undersurface. The covering is inflated through an inlet at the foot end by a thermally-controlled inflating medium. An aperture array on the undersurface of the covering exhausts the thermally controlled inflating medium from the covering. Exhaust port openings are provided that the edges of the covering to vent the inflating medium, which enhances circulation of the thermally-controlled medium through the cover. An uninflatable section is provided at the head end, together with an absorbent bib attached to the covering, adjacent the uninflatable section. An uninflatable section may also be provided at the foot end having a pair of seams to form an erectable drape section. When inflated, the thermal blanket self-erects and provides a bath of thermally-controlled inflating medium to the interior of the erected structure. The enhanced circulation of the medium through the covers maintains a relatively high average temperature under the blanket and a relatively uniform distribution of temperature in the inflating medium which is exhausted through the apertures into the structure's interior. When the structure covers a patient, the uninflatable section at the head end provides a relatively unobstructed view of the patient's face, while the absorbent bib maintains a relatively sanitary environment in the area beneath the patient's head. The uninflatable section at the foot end retains heat from the

inflating medium to warm the patient's feet and insulate the bare skin of the feet from excessive conductive heat from the hose connected to the inflation inlet. The thermal blanket may be sized to cover selected areas of a patient such as the upper body, including the chest, arms, or shoulders, or the lower body, including the pelvic and groin area and the legs.